

REMARKS / ARGUMENTS

Claims 1-46 are pending in the instant application, of which claims 1-40 were previously presented and claims 41-46 are new claims.

Claims 8, 11, 15, 24, 27 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicant has cancelled the objected to claims 8, 11, 15, 24, 27 and 31. New claims 41-46 have been entered, which correspond to the cancelled claims 8, 11, 15, 24, 27 and 31.

Claims 1, 6, 7, 12-13 and 16 are rejected under 35 U.S.C. § 103(a) over Gregg et al. (US Patent No. 5,944,797, hereinafter Gregg ('797)) in view of Gregg et al. (US Patent No. 5,559,963, hereinafter Gregg ('963)).

Claims 17, 20-23 and 28-29 are rejected under 35 U.S.C. § 103(a) over Gregg ('797) in view of Bell (US Patent No. 6,108,736, hereinafter Bell).

Claims 2-5, 7-8, 11, 18-21, 24 and 27 are rejected under 35 U.S.C. § 103(a) over Gregg ('797) in view of Gregg ('963) as applied to claim 1 above and further in view of Kryzak et al. (US Patent No. 6,700,510, hereinafter Kryzak).

Claims 18-20 are rejected under 35 U.S.C. § 103(a) over Gregg ('797) in view of Bell as applied to claim 17 above, and further in view of Kryzak.

Claims 32-40 are allowed.

I. REJECTION UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure ("MPEP") states the following:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the teaching. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

See MPEP at § 2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination," and that "although a prior art device 'may be capable of being modified to run the way the apparatus is claimed, there must be a *suggestion or motivation in the reference* to do so'" (citing *In re Mills*, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)). Moreover, MPEP § 2143.01 also states that the level of ordinary skill in the art cannot be relied upon to provide the suggestion..., citing *AI-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

A. The Proposed Combination of Gregg ('797) and Gregg ('963) Does Not Render Claims 1, 6, 7, 12-13 and 16 Unpatentable

The Applicant turns to the rejection of claims 1, 6, 7, 12-13 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Gregg et al. (US Patent No. 5,944,797, hereinafter Gregg ('797)) in view of Gregg et al. (US Patent No. 5,559,963, hereinafter Gregg ('963)).

A(1). Independent Claim 1

With regard to the rejection of independent claim 1 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Gregg ('797) and Gregg ('963) does not disclose or suggest at least the limitation of "suspending the transmission of the frame of data without waiting for the end of the frame when the first system receives a stop transmission request embedded in a secondary communication channel between the second system and the first system," as recited in the Applicant's claim 1.

The Examiner concedes that "Gregg ('797) does not disclose suspending the transmission of the frame of data without waiting for the end of the frame when the first system receives a stop transmission request embedded in a secondary communication channel between the second system and the first system" (See the Office Action at page 2). The Examiner then relies for support on Gregg ('963) and asserts the following:

"However, Gregg ('963) reference figure 9 discloses suspending the transmission of the frame of data without waiting for the end of the frame when the first system receives a stop transmission request embedded in a secondary communication channel between the second system and the first system (column 8, lines 54-64 and column 12, lines 20-22)."

See the Office Action in page 3. Specifically, the Examiner relies for support on the citation:

"The Suspend/Resume State Machine 904 controls ending currently transmitted frame groups, instructs the XMIT 902(A,B,C,D) functions to send high priority frame groups, and resumes transmission for the prematurely ended buffer area. The Suspend/Resume State Machine 904 receives instructions to send high priority frames from the microprocessor over control line 906, instructions from the System to move data from the Link Adapters to the System over control line 908, and an outbound stall condition from compare circuit 910. Also, the output of OR circuit 912 is called Outbound Busy 930 and is sent to the Suspend/Resume State Machine 904."

See Gregg ('963) in col. 8, lines 54-64. The Examiner seems to equate Gregg ('963) Suspend/Resume state machine 904 receiving instructions 906 to

send high priority frames from the microprocessor to read on "suspending the transmission of the frame of data without waiting for the end of the frame when the first system receives a stop transmission request embedded in a secondary communication channel between the second system and the first system," as recited in the Applicant's claim 1.

The Applicant respectfully disagrees and points out that, contrary to Examiner's assertion, Gregg ('963) discloses that upon receiving a suspend command, a frame transmission does not end until after determination of receiving the end of the frame at certain frame length (frame block boundary). Specifically, the Examiner is referred to the following Gregg ('963) citation:

"The XMIT functions cannot simply end frame transmission as soon as they receive a Suspend command from the Link Controller over bus 1130. The Write Pointer 1106 is used to determine when the frame should be ended after receiving a Suspend command. As discussed earlier, all frames of a frame group must be the same length and, therefore, must also be ended on the same block boundary."

See Gregg ('963) in col. 10, lines 36-42 (emphasis added). Therefore, the Applicant maintains that Gregg ('963) does not disclose or suggest "suspending the transmission of the frame of data without waiting for the end of the frame," as recited in the Applicant's claim 1.

Furthermore, the Applicant has reviewed the above citations from Gregg ('963) used in the Examiner's argument (column 8, lines 54-64 and column 12, lines 20-22) and maintains that **Gregg ('963) does not disclose a secondary communication channel** between the first and the second system. In addition, Gregg ('963) also does not disclose a stop transmission request, which is embedded in the secondary communication channel, as recited in Applicant's claim 1.

Accordingly, the Applicant submits that the combination of Gregg ('797) and Gregg ('963) does not disclose or suggest at least the limitation of "suspending the transmission of the frame of data without waiting for the end of the frame when the first system receives a stop transmission request embedded in a secondary communication channel between the second system and the first system," as recited in the Applicant's claim 1. Consequently, a prima facie case of obviousness under 35 U.S.C. § 103(a) cannot be established in claim 1, and therefore claim 1 should be allowable. The Applicant respectfully requests that the rejection of independent claim 1 under 35 U.S.C. § 103(a) be withdrawn.

Furthermore, The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of independent claim 1 should such a need arise.

A(2). Rejection of Dependent Claims 6, 7, 12-13 and 16

Based on at least the foregoing, the Applicant believes the rejection of the independent claims 1 under 35 U.S.C. § 103(a) as being rendered obvious by combining Gregg ('797) and Gregg ('963) has been overcome and requests that the rejection be withdrawn. Additionally, claims 6, 7, 12-13 and 16 depend from independent claim 1, and are, consequently, also respectfully submitted to be allowable for at least the same rationale as in claim 1.

The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of dependent claims 6, 7, 12-13 and 16 should such a need arise.

B. The Proposed Combination of Gregg ('797) and Bell Does Not Render Claims 17, 20-23 and 28-29 Unpatentable

The Applicant turns to the rejection of claims 17, 20-23 and 28-29 under 35 U.S.C. § 103(a) as being unpatentable over Gregg ('797) in view of Bell (US Patent No. 6,108,738, hereinafter Bell).

B(1). Independent Claim 17

With regard to the rejection of independent claim 17 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Gregg ('797) and Bell ('963) does not disclose or suggest at least the limitation of "embedding flow control data

in a secondary communication channel of the communications link for use by a primary communication channel of the communications link," as recited in the Applicant's claim 17.

The Examiner concedes states that "Gregg ('797) does not teach embedding flow control data in a secondary communication channel of the communication link for use by a primary communication channel of the communication link" (See the Office Action at page 4). The Examiner then relies for support on Bell and asserts the following:

"Bell teaches embedding flow control data in a secondary communication channel of the communication link for use by a primary communication channel of the communication link (column 6, lines 20-24)."

See the Office Action in page 4. Specifically, the Examiner relies for support on the following citation:

"In particular, bus overhead is decreased by distributing flow control to the devices coupled to the bus and embedding flow control data into the packets. Each device has at least one tracker device or circuit that tracks the flow of data and bus requests inbound and outbound onto the bus."

See Bell in col. 6, lines 20-24. The Examiner seems to equate Bell's "embedding flow control data into the packets" to read on "embedding flow control data in a secondary communication channel of the communications link for use by a primary communication channel," and Bells' disclosure of "coupled to the bus" to read on "the communications link," as recited in the Applicant's claim 17. The

Applicant respectfully disagrees and maintains that there is no support in the above Bell's citation, nor elsewhere in the reference, that discloses or suggests that the bus as a communication link, comprises a primary channel **and** a secondary channel. Furthermore, Bell does not disclose any **embedding of flow control data in a secondary communication channel** of the communications link **for use by a primary communication channel** of the communications link, as recited in the Applicant's claim 17.

Accordingly, the Applicant submits that the combination of Gregg ('797) and Bell does not disclose or suggest at least the limitation of "embedding flow control data in a secondary communication channel of the communications link for use by a primary communication channel of the communications link," as recited in the Applicant's claim 17. Consequently, a prima facie case of obviousness under 35 U.S.C. § 103(a) cannot be established in claim 17, and therefore claim 17 should be allowable. The Applicant respectfully requests that the rejection of independent claim 17 under 35 U.S.C. § 103(a) be withdrawn.

Furthermore, The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of independent claim 17 should such a need arise.

B(2). Rejection of Dependent Claims 20-23 and 28-29

Dependent claims 17, 20-23 and 28-29 are rejected under 35 U.S.C. § 103(a) over Gregg ('797) in view of Bell.

Based on at least the foregoing, the Applicant believes the rejection of the independent claims 17 under 35 U.S.C. § 103(a) as being rendered obvious by combining Gregg ('797) and Bell has been overcome and requests that the rejection be withdrawn. Additionally, claims 20-23 and 28-29 depend from independent claim 17, and are, consequently, also respectfully submitted to be allowable for at least the same rationale as in claim 17.

The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of dependent claims 20-23 and 28-29 should such a need arise.

C. Rejection of Dependent Claims 2-5, 7-8, 11, 18-21, 24, and 27

Dependent claims 2-5, 7-8, 11, 18-21, 24 and 27 are rejected under 35 U.S.C. § 103(a) over Gregg ('797) in view of Gregg ('963) as applied to claim 1 above and further in view of Kryzak. Dependent claims 18-20 are also rejected under 35 U.S.C. § 103(a) over Gregg ('797) in view of Bell as applied to claim 17 above, and further in view of Kryzak.

Based on at least the foregoing, the Applicant believes the rejection of the independent claims 1 and 17 under 35 U.S.C. § 103(a) has been overcome and requests that the rejection be withdrawn. Additionally, Kryzak does not overcome the deficiencies of Gregg ('963), claims 2-5, 7-8, 11, 18-21, 24, and 27 depend from independent claims 1 and 17 respectively, and are, consequently, also respectfully submitted to be allowable for at least the same rationale as in claims 1 and 17.

The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of dependent claims 2-5, 7-8, 11, 18-21, 24, and 27 should such a need arise.

D. Allowable Subject Matter

The Applicant respectfully thanks the Examiner for allowing claims 32-40. Since the new claims 41-46 are based on the objected to claims 8, 11, 15, 24, 27 and 31, the Applicant submits that claims 41-46 are also allowable.

CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-46 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Attorney at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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